

Quiz #3

Please print your name:

Problem 1. A mountain climber is about to haul up a hanging rope. How much work will this take if the rope is 10 ft long and weighs 0.1 lb/ft?

(For full credit, you need to write down an integral for the amount of work.)

Problem 2. (Bonus) What is (roughly) the speed of light (in vacuum)? Circle the correct choice for a small bonus.

(a) $300,000 \text{ km/s} = 186,000 \text{ miles/s}$

(c) $300 \text{ km/s} = 186 \text{ miles/s}$

(b) $20,000 \text{ km/s} = 12,400 \text{ miles/s}$

(d) $343 \text{ m/s} = 1126 \text{ ft/s}$

Which of the following is closest to the radius of earth?

(a) $300,000 \text{ km} = 186,000 \text{ miles}$

(c) $6,370 \text{ km} = 3,960 \text{ miles}$

(b) $20,000 \text{ km} = 12,400 \text{ miles}$

(d) $1,740 \text{ km} = 1080 \text{ miles}$